SASKATCHEWAN CANCER FOUNDATION

ANNUAL REPORT 1983-84

85-4177

Annual Report

of the

SASKATCHEWAN

CANCER

FOUNDATION

April 1, 1983 to March 31, 1984

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SASKATCHEWAN CANCER FOUNDATION

Members

Mr. E. I. Schwartz
Chairman

Dr. R. B. Baltzan

Dr. J. L. Blackburn

Mr. J. Craig

Dr. I. E. Daunt

Dr. P. A. Glynn

Mrs. E. Green

Mr. G. F. McCallum

Dr. R. G. Murray

Ms. L. Perrin

Mrs. J. Turko

Honourable Graham Taylor
Minister of Health
Province of Saskatchewan
Legislative Building
REGINA, Saskatchewan
S4S 0B3

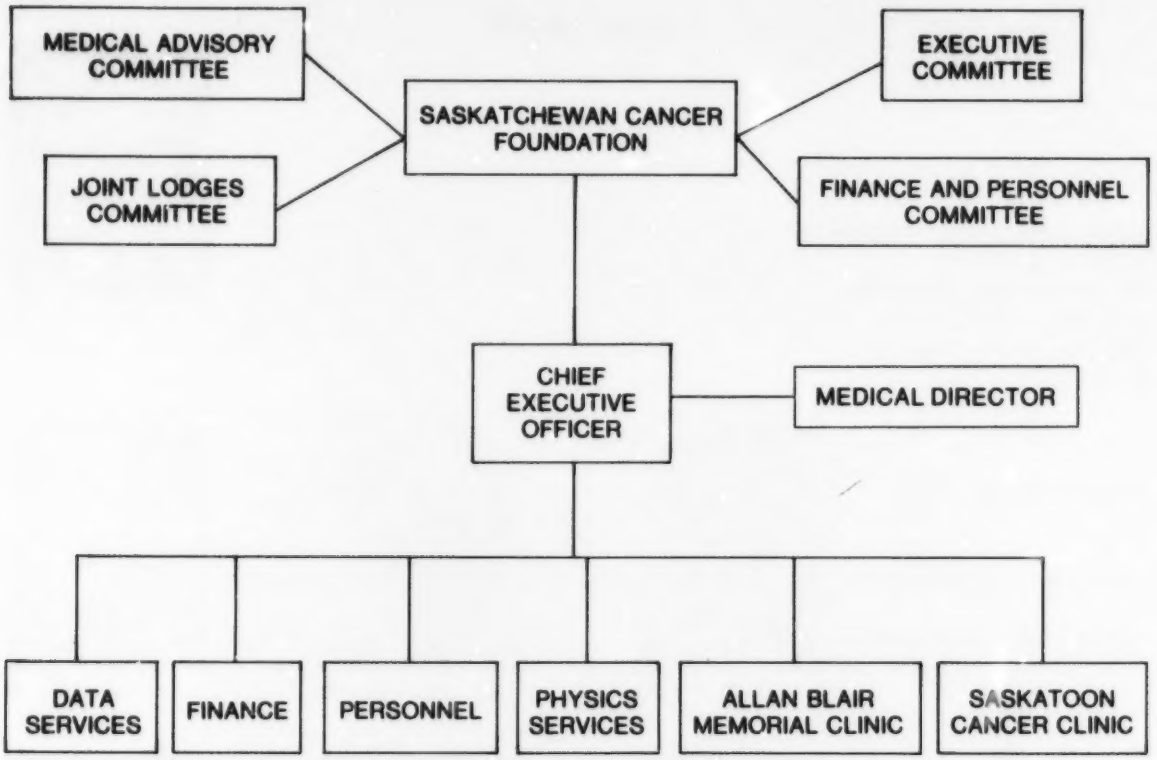
Dear Mr. Taylor:

As Chairman of the Saskatchewan Cancer Foundation, I have the honour to submit herewith the report on the activities of the Foundation for the fiscal year ending March 31, 1984.

Respectfully submitted,

E. I. Schwartz
Chairman

ORGANIZATION CHART



MEDICAL ADVISORY COMMITTEE

Dr. D. J. Klaassen — Chairman
Dr. G. R. Armitage
** Dr. B. P. D. Colquhoun
** Dr. W. N. Huber
** Dr. S. K. Liem
* Dr. W. D. MacRae
Dr. J. B. McSheffrey
Dr. L. K. Moore
* Dr. M. A. Poon
Dr. C. H. Rusnak
Dr. G. R. Spooner
* Dr. R. W. Twanow
Dr. H. G. Whiston

* Completed term December 31, 1983
** Appointed Effective January 01, 1984

JOINT LODGES COMMITTEE

Mr. G. F. McCallum
Ms. L. Perrin

EXECUTIVE COMMITTEE

Mr. E. I. Schwartz — Chairman
Dr. J. L. Blackburn — Vice-Chairman
Dr. R. B. Baltzan
Mr. G. F. McCallum
Dr. R. G. Murray

FINANCE AND PERSONNEL COMMITTEE

Dr. J. L. Blackburn — Chairman
Mr. J. Craig
Mrs. E. Green
Mr. E. I. Schwartz
Mrs. J. Turko

ORGANIZATION

ADMINISTRATION

P. H. Peters
— *Executive Director*

R. J. Meldrum
— *Director of Finance*

O. H. Pratt
— *Director of Personnel*

D. L. Robson
— *Director of Data Services*

S. O. Fedoruk
— *Director of Physics Services*

W. G. Sharp
— *Associate Director of Finance*

J. M. Gebert
— *Administrative Assistant*

S. H. Tompkins
— *Personnel Clerk*

D. A. Lauridsen
— *Payroll Clerk*

M. J. Wenman
— *Accounting Clerk*

ALLAN BLAIR MEMORIAL CLINIC

Dr. H. G. Whiston
— *Director*

B. I. Karchewski
— *Secretary*

J. A. Grill
— *Business Manager*

A. M. Sweet
— *Assistant to Business Manager*

M. Foster
— *Secretary*

SASKATOON CANCER CLINIC

Dr. D. J. Klaassen
— *Director*

A. D. Oatway
— *Secretary*

O. Belovanoff
— *Business Manager*

M. M. Wood
— *Assistant to Business Manager*

The Saskatchewan Cancer Foundation has established several sub-committees to facilitate the carrying out of its mandate. The Executive Committee of the Foundation is composed of the Chairman, Vice-Chairman and three other members. It considers any urgent business of the Foundation that may arise between regular meetings of the Foundation. The Medical Advisory Committee advises the Foundation on the provision of medical services and other related matters. Its membership includes the Medical Directors of the cancer clinics, two full-time physicians on the clinic staff, three specialists in private practice and two general practitioners as determined by agreement with the College of Physicians and Surgeons of Saskatchewan and one representative from the College of Medicine. At least ten and not more than seventeen members may be appointed to the committee. The Finance and Personnel Committee consists of the Chairman — ex officio, and four other members of the Foundation. It makes recommendations regarding the financial operation of the program, as well as personnel matters including salary and fringe benefits of staff. The Joint Lodges Committee is a joint committee of the Saskatchewan Cancer Foundation and the Canadian Cancer Society, Saskatchewan Division. Its role is to evolve proposals for patient lodges in Regina and Saskatoon. Two members representing the Saskatchewan Cancer Foundation are members of the committee.

The development and operation of the Saskatchewan Cancer Program is the responsibility of the Saskatchewan Cancer Foundation. It employs a chief executive officer who is responsible for implementing the policies of the Foundation and for the ongoing operation of the program.

The Foundation maintains two service outlets — the Allan Blair Memorial Clinic in Regina and the Saskatoon Cancer Clinic. The clinics provide full diagnostic services, treatment services in radiotherapy and chemotherapy, and follow-up services. The clinics also serve as the centre for co-ordination of a comprehensive and multi-disciplinary approach for all aspects of care and treatment for the cancer patients.

The staff works closely with the patient's family physician, consulting physician and surgeon and other persons not directly employed by the Foundation to ensure the provision of high quality treatment and follow-up care.

Objectives

The objectives of the Saskatchewan Cancer Foundation are:

- the operation of cancer clinics for the examination, diagnosis and treatment of cancer patients
- the education of the public in the importance of the early diagnosis, prevention and treatment of cancer
- the training of technical personnel to assist in the examination, diagnosis, treatment and study of cancer and the provision of facilities for undergraduate and post-graduate study relating to cancer
- the conduct of and participation in research projects in the diagnosis, prevention and treatment of cancer
- the establishment, maintenance and operation of hostels in connection with the clinics

Eligibility and Benefits

To be eligible for benefits under the Cancer Control Program, a patient must be a resident of the province for three months and must be formally admitted to the program by his/her doctor. For landed immigrants and some special residents returning to Canada, this period is reduced to one day. Details on policies governing admission to the program, and payment of services, are included on Page 38.

There is no charge to eligible patients for diagnostic and treatment services received at the cancer clinics. In addition, the Foundation pays for authorized medical and surgical services provided by physicians in private practice, in-hospital drugs, and certain out-patient drugs used in the active treatment of cancer.

Eligible patients who elect to receive their cancer services outside the province are reimbursed at the same rates as if the service was provided in Saskatchewan. If a patient is referred out of the province by the Foundation for treatment not available in Saskatchewan, payment will be made for the medical and hospital expenses incurred. Non-residents who receive cancer services in Saskatchewan are charged at Saskatchewan rates for services rendered.

Nature and Scope of Services

The program offered by the Saskatchewan Cancer Foundation incorporates prevention, detection, diagnosis, treatment and follow-up of patients with malignant or premalignant disease. As a part of this comprehensive program, the Foundation is involved in teaching and research which is complementary to the service activities.

Since only patients referred by doctors are admitted to the Cancer Control Program, the responsibility for suspecting cancer and facilitating its detection at the earliest possible time rests with the family doctor. When the family physician suspects the presence of cancer, and has completed his investigations, a diagnosis should be arrived at and an evaluation made as to the extent of the disease and the treatment required as soon as possible. To facilitate this process, the patient should be referred to the cancer clinic or appropriate specialists, whichever is most suitable. In all cases, the patient must be registered with the program within 14 days of making the diagnosis of cancer.

When a malignant condition is discovered, the clinic medical staff, the patient's physician, and consultant specialists plan and carry out a treatment program. If surgery forms part of the treatment, the patient and his physician may choose an appropriate qualified surgeon from a surgical roster maintained by the Foundation. If radiotherapy forms part of the treatment plan, it is administered by therapeutic radiologists on the staff of the clinics. Chemotherapy, the treatment of cancer through the administration of chemical agents, is carried out by clinic medical staff and by other physicians in consultation with clinic staff.

Regular follow-up examination of patients treated for cancer is a vital procedure in detecting recurrent disease and for assessing the effectiveness of treatments. The Saskatchewan Cancer Foundation maintains a comprehensive follow-up activity with all patients receiving regularly scheduled examinations after treatment by either personnel of the clinics or their family physician.

The staff of each clinic, in co-operation with the patient's family physician and consultant specialists, attempt during treatment and follow-up to prepare the patient both physically and psychologically for the future. Those who must be fitted with prosthetics are given instructions on how to adapt to them, while patients with certain disabilities are cared for at the Wascana Hospital in Regina or the rehabilitation unit of the University Hospital in Saskatoon. Patients and their families often go through successive periods of stress and readjustment when faced with problems created by a diagnosis of cancer. Medical Social Workers at each clinic are available to meet the social and emotional needs of the cancer patients and their families.

REPORT OF THE EXECUTIVE DIRECTOR

I am pleased to submit this report highlighting the Saskatchewan Cancer Foundation's activities for the year 1983-84.

The year was marked by considerable effort in future planning. Specifically, this involved the selection of linear accelerators for both clinics, the study and selection of new computer equipment and the planning of a new cancer clinic in Saskatoon.

The two Departments of Radiotherapy together with the Foundation have been evaluating radiotherapy equipment identified in the Foundation's five year plan. The requirements are for one linear accelerator in the Allan Blair Memorial Clinic and three linear accelerators in the Saskatoon Clinic. Tenders for this equipment have closed and a decision on the supplier is expected to be made in May, 1984.

A study of our administrative and scientific computing requirements was completed in July of 1983. In October, the Board approved the purchase of computer equipment which has the ability to meet both these requirements. The integration of these two applications is recognized to be ambitious, however, the improved service to the public with the effective use of our staff and equipment makes the process imperative.

The provincial government included funds in our 1983 budget to commence planning the proposed new cancer clinic facility in Saskatoon. The Foundation retained Resource Planning Group of Vancouver, British Columbia to undertake a functional program and physical feasibility study of the Saskatoon Cancer Clinic. Upon receipt and acceptance of the Report, the Foundation has commenced an architect selection process which is expected to be completed in May, 1984. The Foundation is excited about the prospect of having this new facility in Saskatoon. We believe it will be a cancer clinic which will meet the needs of an expanding program of cancer services to the turn of the century and one of which we can be justly proud.

Planning at the Allan Blair Memorial Clinic is also ongoing and we are pleased with the approval from the Minister of Health to do some renovations in the Radiotherapy Department. In addition, planning is underway to construct a bunker to house the new linear accelerator.

The opening of the Canadian Cancer Society Patient Lodge in Saskatoon added a new dimension to the cancer program. The lodge, built by the Canadian Cancer Society and operated by the Foundation, provides free accommodation for out-of-town ambulatory patients receiving treatment at the clinic. We are pleased that the Society is looking to build a similar facility in Regina in 1984-85. Our thanks to the Society for their good work.

I would like to thank the members of the Foundation Staff and the volunteers for their contribution over the past year. It is only with their continued support and enthusiasm that our plans can be realized over the coming years.

Finally, my thanks to the Chairman and Board of Directors for their direction, assistance and encouragement during the past year.

P. H. Peters

REPORT OF THE MEDICAL DIRECTOR

The past year was an active and exciting one for the cancer program. Considerable time was spent by the staff in the evaluation of the computer needs and programs of the Foundation; evaluation of new radiotherapy equipment and planning of facility changes. We are grateful for the opportunity to be involved in these important activities.

Dr. M. A. Poon of the Regina Cancer Clinic chaired a committee which developed guidelines for the safe handling of antineoplastic agents. The Cancer Foundation was pleased with the committee's excellent report and have circulated copies of the guidelines to appropriate agencies and institutions.

Both clinics have identified the need for an inpatient oncology unit in their parent hospitals. Discussions are ongoing with both the University Hospital and the Pasqua Hospital and we appreciate that progress is being made to establish such units.

The Medical Advisory Committee, which advises the Cancer Foundation on matters relating to the provision of medical and surgical services to patients, had changes in membership in the spring of 1984. Dr. W. D. McRae, Dr. M. A. Poon and Dr. R. W. Twanow, having completed their terms, were not eligible for reappointment and were replaced by Dr. B. P. D. Colquhoun of Saskatoon, Dr. S. K. Liem of the Allan Blair Memorial Clinic and Dr. W. N. Huber of Humboldt. We appreciated the contributions made by Drs. McRae, Poon and Twanow since the committee's inception in 1980.

The Annual Cancer Symposium was held in Saskatoon on the topic of Pediatric Oncology and served as the focus for a meeting of the Western Canadian Pediatric Oncologists. All agreed it was a most successful event.

The Annual Professional Staff Retreat for physicians and physicists was held in October, 1983 in Saskatoon with active, enthusiastic participation in evaluating our present and future activities.

The Physicians Planning Group, consisting of the Directors and Medical Department Heads, met twice to provide overall co-ordination for medical activities. The staff of both Clinics are actively participating in the development of Palliative Care services for the province.

In spite of the progress made, we realize that we have much more to accomplish. The research activity of the staff, as outlined in the Research Projects and Publications, is improving yearly, however, still is not to the level which it should be. Important programs such as Epidemiology and Biostatistics have yet to be developed.

D. J. Klaassen

REPORT OF THE RADIATION ONCOLOGY CO-ORDINATOR

Radiation Oncology is a specialty area which uses x-rays and gamma rays in the diagnosis and treatment of malignant disease.

In 1983, the two clinics provided radiotherapy treatment to 2,384 patients. These treatments were predominately done with radiation oncology treatment equipment such as linear accelerators, cobalt units and x-ray units. Plans to upgrade radiation oncology departments over a three year period include the purchase of one linear accelerator for the Allan Blair Memorial Clinic and three linear accelerators for the Saskatoon Cancer Clinic. In addition, planning is underway at the Allan Blair Memorial Clinic to construct a bunker to house the new linear accelerator.

The staffing shortage of both radiation oncologists and radiotherapy technologists has been resolved and both clinics now have a sufficient complement of staff.

The Provincial Radiation Technologist Training Program accepted five students into the program, three for Regina and two for Saskatoon. These students receive their basic didactic training at the Princess Margaret Hospital in Toronto, Ontario and return to Saskatchewan to complete their clinical studies.

H. G. Whiston

REPORT OF THE PEDIATRIC CO-ORDINATOR

Pediatric oncology is a specific area of cancer with a relatively small number of patients who have more potentially curable conditions than in the adult population. The medical oncology staff of both clinics have specialized pediatric oncologists to provide treatment and support to these patients.

In 1983, 52 cases of cancer in patients age 19 years or less were registered within the program.

The Saskatoon Cancer Clinic was accepted as a provisional affiliate of the Children's Cancer Study Group (CCSG) of the Mayo Clinic. Twenty-two patients have been registered with the CCSG and one patient is on study protocol. Sixteen open protocols have been submitted to the President's Committee on Human Experimentation and have received approval for use in the Saskatoon Clinic.

J. B. McSheffrey

REPORT OF THE MEDICAL ONCOLOGY CO-ORDINATOR

Medical oncology provides chemotherapy and immunotherapy treatment services to patients with neoplastic and hematologic diseases. Close liaison is maintained with the Department of Radiation and Pediatric Oncology in the provision of these services.

In 1983, the two clinics provided 6,998 treatment services to patients, excluding pediatric services in Saskatoon.

Both the Allan Blair Memorial Clinic and the Saskatoon Cancer Clinic were confirmed as joint, full members of the North Central Cancer Treatment Group. Initial patient entry has been good and we look forward to increasing activity over the next year. The Saskatoon Cancer Clinic continues to actively participate with the N.C.I.C. Clinical Trials Program.

Although space is a limiting factor in the development of research programs at both clinics, the medical oncologists are involved in various areas of research. A detailed outline of these activities can be found under the section entitled 'Research Projects'.

M. A. Poon

REPORT OF THE DIRECTOR OF PHYSICS SERVICES

Physics Services supports radiation oncology in both clinics through the continued maintenance of all aspects of radiation dosimetry; collaboration in treatment planning and in verification of the accurate execution of the plans; responsibility for all physical aspects of radiation protection; design and maintenance of radiation oncology equipment; and advice on the choice of new radiation oncology equipment and on the physical aspects of the design of buildings.

Physics Services has continued to develop and enhance existing computer hardware for the Departments of Radiation Oncology. Treatment planning programs are developed for both clinics using the PDP11/60 computer located at the Allan Blair Memorial Clinic. During the year, continuing effort was expended on preparation for acquisition of new hardware.

Physics Services continues full maintenance support for major radiation oncology treatment equipment. Current radiation oncology treatment equipment in the Allan Blair Memorial Clinic consists of a dual purpose x-ray unit, a Picker C9 Cobalt unit, a Siemens 20 MeV Linear Accelerator, and a Siemens Simulator. The Saskatoon Cancer Clinic houses two x-ray units (280 kVp and 120 kVp), a Siemens 42 MeV Betatron, an AECL Cobalt unit, and an AECL Simulator.

During the past year, Physics Services was involved in the selection of linear accelerators for both clinics, the new computer system design, planning for the new Saskatoon Cancer Clinic, completion of construction of additional space in Wing E of the University Hospital, planned additional space for physics as part of the regeneration program at the Pasqua Hospital and development plans for the bunker required to house a second linear accelerator at the Allan Blair Memorial Clinic.

Physicists in both clinics are extensively involved with the Departments of Nuclear Medicine of the Pasqua, Plains and University Hospitals. Camera and computer upgrading took place at University Hospital. In addition, Physics Services completed and tested a cabling system connecting the mobile camera in the Intensive Care Unit to the Department of Nuclear Medicine in University Hospital.

Physics Services has been increasingly active in the areas of research and development. In Regina, the verify/record system was completed and put into routine use, as was a program for calculating and displaying dose distributions for interstitial and intra-cavitary implants. In Saskatoon, developmental work is continuing on new techniques to measure patient contours using both a sonics and an optical approach.

The physicists also contribute to a number of committees concerned with radiation, including the Atomic Energy Control Board of Canada, Radiation Safety Committees of the University and Pasqua Hospitals and the Radiation Health and Safety Committee of Saskatchewan.

S. O. Fedoruk

REPORT OF THE DIRECTOR OF DATA SERVICES

Data Services is primarily involved with the support and maintenance of the cancer registry and its associated functions within the clinics' Health Records Departments.

In 1983, the Foundation's decision to redesign the Cancer Patient Data System as an in-house on-line system versus the current batch operated system existing on an IBM mainframe had a high impact on system development and progress. Efforts during the year were turned to verification of the quality of the existing data and initial design of the new system. The new Cancer Patient Data System will include on-line data entry, appointment booking and will continue our follow-up program as a part of Phase I implementation. This implementation is planned for January, 1985.

Throughout the year the registry provided data for 60 information requests. These information requests range in complexity from simple incidence counts to specialized studies which may involve unique data extraction and computer programming. There was an increase in the number of requests for geographical incidence and this requirement will become a part of the design of the new system. Basic data available for studies and accessible on computer files currently goes back to 1970. The data from 1935 to is available manually.

In 1983, 4,765 new cases were diagnosed in Saskatchewan. The summary of these cases and incidence rates per 100,000 population can be seen on pages 24 and 25 of this report. Throughout the province there are approximately 35,000 active patients of which 6,000 are on clinic review, 27,000 on follow-up by mail review, and the remaining 2,000 are new and benign patients.

A committee of Health Records Administrators and Technicians from the provinces of British Columbia, Alberta, Saskatchewan, Manitoba and Ontario was established under the guidance of the Western Canada Cancer Registries Association to determine the levels of data comparability among these provinces. The final report from this committee is expected in the summer of 1984.

In the next year, it is expected that there will be a continuing increase in demand for and complexity of data requests and studies. However, the foremost concern will be for the development and implementation of the new data system which will improve the productivity and the service provided by the cancer registry.

D. L. Robson

ALLAN BLAIR MEMORIAL CLINIC

REPORT OF THE ALLAN BLAIR MEMORIAL CLINIC

In 1983-84, plans for expansion of the Allan Blair Memorial Clinic in the areas of physics, radiotherapy, and research were an important part of the clinic's work.

In the Department of Radiation Oncology, an additional bunker is being planned to house a second linear accelerator as a replacement for the existing Cobalt machine.

The problem of the shortage of Radiotherapy Technologists has been resolved with the arrival of several technologists from Great Britain, and the recruitment of a Chief Technologist from London, Ontario. The clinic has again undertaken a Radiotherapy Technologist Training Program. An instructor has been appointed and three students commenced training in October.

In addition to the usual support provided to the Department of Radiation Oncology, Physics Services provided further assistance by participating in the selection of the linear accelerators and computer hardware.

The verify/record system, a major programming project to provide verification of patient treatment set-ups, was completed and put into routine use, as was a program for calculating and displaying dose distributions for interstitial and intra-cavitary implants.

In Nuclear Medicine, research into the study of the ejection fraction of the ventricles of the heart is being continued with the use of a dynamic phantom and the use of computer software. Development of dedicated hardware enabling physiologically gated SPECT (Single Photon Emission Computer Tomography) has also continued.

The electronics workshop, machine shop and mould room provide technical support for Physics Services. In recognition of the increased workload in the mould room, an additional physics technician position was established. Plans are currently underway to relocate and expand the clinic's mould room and machine shop.

The Health Record Department has become more efficient and effective following the recent physical renovations, in conjunction with procedural changes. In January, the manual completion of a statistical card for each case registered was replaced by the Cancer Patient Data System which has been running in parallel with the card system for several years.

In Nursing Services, the increased number of patients being treated on the linear accelerator and the increased involvement of nurses in research protocols, led to the establishment of two new positions.

The Social Work Department was involved in a variety of ongoing programs. The Community Education Program, which was developed in 1982, carried over into 1983. This program involved the staff of the Allan Blair Memorial Clinic, the Pasqua Hospital and the Wascana Home Care Program and provided an orientation of services available for cancer patients.

The commitment to the establishment of an emotional and social environment in which the terminally ill can live and die in comfort and with dignity saw the formalization of the Palliative Care Interest Group into the Regina Palliative Care Incorporated. The Social Services Department remains closely connected with this group.

Both the Medical Social Worker and the Personal Services Worker provided development training sessions for the staff of the Clinic.

The Medical Social Worker received 214 new patient referrals and conducted 1,596 patient and family interviews. The most frequent reason for social work involvement was to provide emotional support to patients and their families and to arrange for community care services upon discharge of the patient.

The Personal Services Worker provided many services to patients, including emotional support, community support, information and wig fitting, mastectomy and nutritional information. There was a total of 2,334 patient contacts. In addition, the Personal Services Worker provided 177.5 hours in the co-ordination of the day-to-day activities of the Volunteer Program.

The time and effort contributed by the volunteers in the care of the patients is gratefully acknowledged, as is the grant from the Canadian Cancer Society for the funding of the Personal Services Worker.

Allan Blair Memorial Clinic Staff

Medical

H. G. Whiston, M.B., Ch.B., D.M.R.T., F.R.C.P.(C) — Director
W. A. Bethune, M.B., B.S., D.A.B.R.
G. H. Ewing, M.B., Ch.B., M.R.C.P.(Ed), F.R.C.P. (C)
T. S. Goh, M.B., B.S., F.R.C.P.(C)
P. W. Kuan, M.B., D.M.R.T.(T), F.R.C.P.(C)
S. K. Liem, M.D., D.A.B.R., F.R.C.P.(C)
J. H. MacIntosh, M.D.
M. A. Poon, M.B., F.R.C.P.(C)
S. Rayson, M.B., B.S., F.R.C.P.(C)
L. J. Rodrigue, M.D., F.R.C.S.(C), D.A.B.S.

Part Time

C. H. Crosby, B.Sc., M.D., C.M., F.R.C.S.(C), F.A.C.S.

Consultants

Pathology
D. Dexter, M.R.C. Path., F.R.C.P.(C)

Diagnostic Radiology
H. H. Phillips, M.D., F.R.C.P.(C)

Nurses

V. Curtis — Head Nurse
J. Bartel
G. Burk
M. Gautama
G. Lefebvre
S. McNea
F. Moore
B. Priebe
S. Fraser, T. Hill — Part Time

Health Record Administrator

K. Hack

Statistics

A. Watson
K. Dorgan
E. Hubick
G. Korol
P. Green, M. Johnson — Part Time

Records

M. Durston
S. Leswick-Hazen
A. Nimetz
E. Robertus
R. Schondelmier
S. Monson, L. Skrtic — Part Time

Data Entry

B. Bryska — Part Time

Reception and Admitting

P. Seida
D. Tendler

Medical Typists

C. Bagu
C. Bennett
D. Dunham
L. Kardynal
R. Nagy
S. Rabak

Physicists

P. B. Morris, B.Sc., Ph.D.
— Chief Medical Physicist
P. A. Dickof, M.Sc.
R. S. Sloboda, B.Sc., Ph.D.
M. G. Schmid, B. Sc., M.Sc.

Physics Support Staff

R. Bardutz
J. Lawrence
I. Hardie
W. Phillips

Radiotherapy Technologists

M. Stepanek — Chief Technologist
M. Bardutz
B. Green
G. Hewitt
N. Makhani
T. Mitchell
J. Rogers
K. Thompson
M. White

Radiotherapy Technologist Students

T. Hubick
R. O'Byrne
E. Schmid

Research Assistants

T. Daly

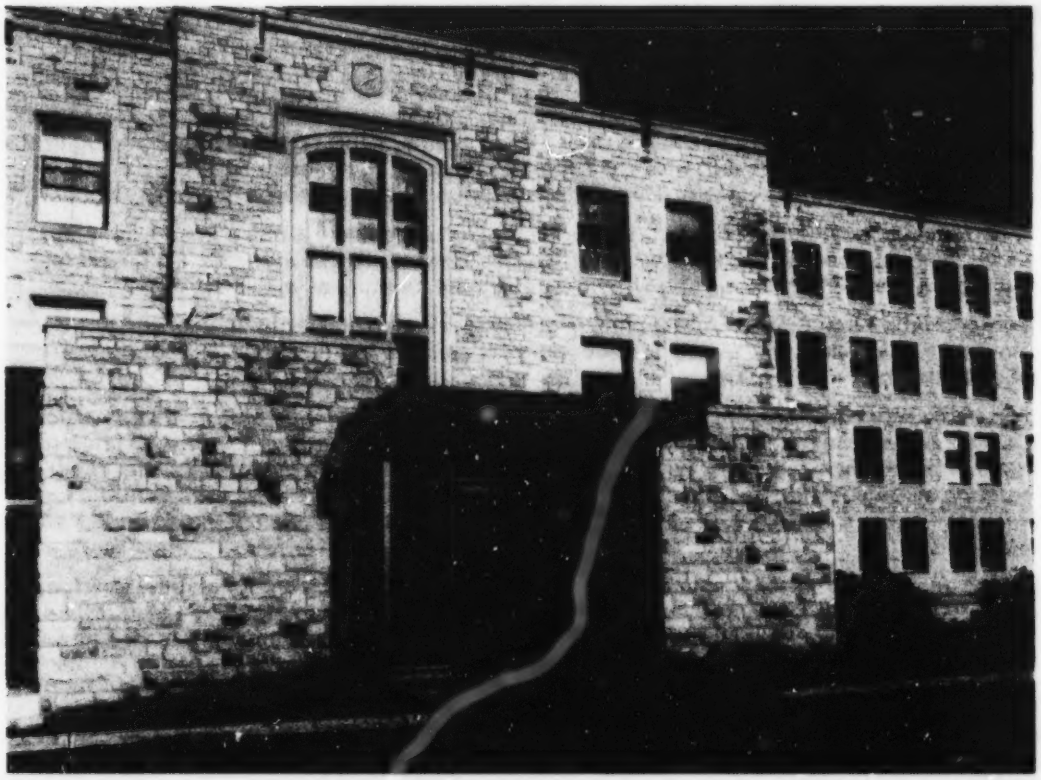
Social Worker

B. Uncles, B.A., B.S.W.

Personal Services Worker

B. Butcher

SASKATOON CANCER CLINIC



REPORT OF THE SASKATOON CANCER CLINIC

The highlight of 1983-84 was the announcement, early in the year, by the Minister of Health, The Honourable Graham Taylor, that funds would be made available for a new cancer clinic. This generated a great deal of excitement and involved many hours of staff participation in the planning process. The selection of an architectural firm for this facility will be made in May of 1984 following which detailed design work will commence.

In Medical Oncology, Dr. Mary Davis and Dr. Cameron Little were welcome additions to the staff. Patient care activity remained at a high level with the Chemotherapy Department averaging 300 patients per month. Following the introduction of guidelines for the safe handling of antineoplastic agents, a vertical flow biohazard hood was installed in the Chemotherapy Department.

The medical oncologists continued to be fully involved in the various activities of the Department of Medicine including the teaching of undergraduate medical students and residents.

In the Department of Radiation Oncology, a number of new staff appointments took place. Dr. D. G. McGowan was appointed Head of the Department in July, 1983. The radiation oncologist staff was brought to a full complement with the appointment of Dr. P. K. Joseph and Dr. I. M. MacLennan. This allowed a greater involvement in teaching and research activities to occur.

An increase in the number of patients and complexity of treatments has placed a considerable strain on the equipment within the Radiotherapy Department. To alleviate this, a 6 MeV linear accelerator will be ordered soon and should be available for clinical use in late 1984.

The Foundation's Radiotherapy Training Program graduated one technologist who has been employed by this clinic. At present, one second-year student and two first-year students are enrolled in the training program.

In Physics Services, considerable effort was put into future planning. This involved participating in the selection of linear accelerators and the design of a new computer system. Continuing effort was expended on the preparation of new computer programs and provision of interim dose calculation service via the AEDS-11 display computer and Regina's PDP-11/60 pending the arrival of the new VAX 11/750. Physics Services will oversee installation of the computer and terminals.

Toward year end, additional space was made available by the University Hospital for office, laboratory, electronics and computer facilities. New positions for dosimetry and electronics were approved in anticipation of the arrival of the linear accelerator and commissioning of a new water phantom.

In other areas, a high speed rotor option was installed on the simulator imaging chain. A significant development was the introduction of Iridium-192 seeds for interstitial radiotherapy, mainly for breast cancer.

The physicists continued to participate in educational activities. Dr. Reid co-ordinated a graduate course in Environmental Radiation Toxicology. Dr. Baillie supervised a Master's student working towards his degree in Biomedical Engineering as well as a summer student working on the installation of a Monte Carlo radiation transport algorithm on the University's computer.

In the area of research protocols, co-operative group clinical trials are continuing with the National Cancer Institute, the North Central Cancer Treatment Group and Cyanamid Clinical Research. We are now participating in the activities of the Radiation Therapy Oncology Group and the Children's Cancer Study Group. In other research activities, Dr. Skinnider and Dr. Maksymiuk continued their work in evaluating in vitro colony growth of malignant B lymphocytes obtained from humans. Dr. Little began a research project involving the study of cellular oncogenes in human lung cancer.

The Nursing Department has continued to provide educational services to student nurses, pharmacy students and others, as well as participating in Continuing Nursing Education and education of community groups.

In Health Records, the microfilming of inactive patient charts commenced. Over 2,200 charts were filmed on microfiche. The manual preparation of statistical cards was stopped as the information now on the computer file has proven to be an adequate source of data.

On April 8, 1983, the first Saskatchewan patient lodge was officially opened by the Saskatchewan Division of the Canadian Cancer Society. The fully equipped 28 bed facility at 1036 College Drive was transferred to the Saskatchewan Cancer Foundation for operation. Mrs. Marlene Kucey was appointed as Lodge Manager. The first patient was admitted on June 1, 1983 and to March 31, 1984 there have been 344 admissions.

The Medical Social Worker conducted 502 patient and family interviews in the clinic and 297 in hospitals. She also participated in organizational and educational activities in conjunction with Saskatoon Home Care, the Canadian Cancer Society, the Faculties of Medicine, Nursing, and Social Work, the Indian Cultural College, the University Departments of Psychology and Sociology and support groups such as Cansurmount, the Patient Lodge Group and a group for parents of pediatric patients. A major focus this year has been working toward optimum care for terminally ill patients and a hospice program in Saskatoon through Humanitas Inc. In addition, the Medical Social Worker was significantly involved in the design and organization of the Saskatoon Home Care Palliative Care Pilot Project.

Saskatoon Cancer Clinic Staff

Medical

D. J. Klaassen, B.A., M.D., F.R.C.P.(C) — Director
C. T. Ago, M.B., D.M.R.T., F.R.C.R.
G. R. Armitage, M.D., F.R.C.P.(C)
M. L. Davis, M.D.
P. K. Joseph, M.B.B.S.
C. D. Little, M.D., F.R.C.P.(C)
D. G. McGowan, M.B., Ch.B., D.M.R.T., F.R.C.P.(C)
I. M. MacLennan, M.B., Ch.B., D.A.B.R.(T)
J. B. McSheffrey, B.A., M.D., F.R.C.P.(C)
A. W. Maksymiuk, .M.D., F.R.C.P.(C)
M. F. Mohamed, M.B.B.S., D.M.R.T., F.R.C.R.
A. Naidoo, M.B., Ch.B.

Part Time

R. T. Card, M.D., F.R.C.P.(C)
S. Padmanabh, D.C.P., M.R.C.P. (Ed), F.R.C.P.(C)
D. Popkin, B.Sc., M.D., C.M., F.R.C.S.(C)
L. F. Skinnider, M.B., F.R.C.P. (C)

Consultants

Pathology
H. J. Block, F.R.C.P.(C)
H. E. Emson, F.R.C.P.(C)

Diagnostic Radiology
G. Bray, D.M.R.D., F.R.C.P.(C)
C. S. Houston, M.D., F.R.C.P.(C), F.A.C.R.
J. G. Monks, F.C.C.P., B.A.O., D.M.R.D., F.R.C.P.(C)

Nurses
S. Cianfione — Head Nurse
B. Bourhis
E. Farkas
M. Grant
V. Stacey
D. Welke
L. Wilson
C. Bichon, D. Hickie, D. Hogg — Part Time

Health Record Administrator
H. Whittaker — Acting

Statistics
M. Blatz
D. Burnett
J. Frechette
R. McKillican
L. Taylor
R. Jackson, F. Lowe — Part Time

Records
N. Butschler
L. Fleming
C. Johnson
V. Langlois
Y. Paradis
S. Saini — Part Time

Data Entry
L. Miller

Reception and Admitting
D. Dyal
S. Estey
D. Jaszan

Medical Typists
A. Greva
S. Boulin
M. Emigh
L. Kurji
D. Leciuk
O. Marriott
D. Melnyk

Physicists
W. B. Reid, B.A., M.A., Ph.D., F.C.C.P.M. — Chief Medical Physicist
A. D. Baillie, B.Sc., Ph.D.
R. Hummel, B.Sc.(EE), M.Sc., Ph.D.

Physics Support Staff
R. Berthiaume
J. McConnell
K. Damm
H. Dueck — Part Time

Physics Secretary
B. Piercy

Radiotherapy Technologists
H. Walker — Chief Technologist
J. Bishop
S. Boyle
T. Cisecki
P. Gesiorowski
E. Goretzky
M. Nicol
N. Carlsen, D. Rapp, J. Rudolph, P. Stalker — Part Time

Radiotherapy Technologist Students
K. Jones
M. Presber
K. Stewart

Research Assistants
W. Potter
D. Dupuis

Social Worker
E. Skinner, R.S.W.

Personal Services Workers
C. Deering
D. Havard

Patient Lodge
M. Kucey — Lodge Manager
B. Gregory
L. Mulligan
M. Strohan
A. Urscheler
A. Janzen, G. Ruder — Part Time

THE SASKATOON CANCER PATIENT LODGE

On April 8, 1983, the first Saskatchewan patient lodge was officially opened by the Saskatchewan Division of the Canadian Cancer Society. Located near the Saskatoon Cancer Clinic, at 1036 College Drive, the Lodge provides free accommodation for out-of-town ambulatory patients receiving treatment at the clinic.

The Cancer Patient Lodge is operated by the Saskatchewan Cancer Foundation as a department of the Saskatoon Cancer Clinic. The formal agreement turning over the Cancer Patient Lodge to the Saskatchewan Cancer Foundation to operate occurred on September 9, 1983.

The Cancer Patient Lodge can accommodate as many as 28 people in 10 double and 8 single rooms. Patients stay free, while family members can stay with them in the Lodge for a nominal fee.

Policies governing admission to the Lodge are outlined on page 43.

SASKATCHEWAN CANCER FOUNDATION
STATISTICAL TABLES

DISTRIBUTION OF NEW CANCERS BY SITE, SEX AND AGE GROUP — 1983

SITE	Sex	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	80-84	85+	Total
Lip	M								1	2	3	3	13	7	10	13	6	9	6	86
	F															2	4	1	1	8
Oral Cavity	M											5	1	6	3	3	1	1	3	27
	F										1		1		3	3	2	1	1	11
Pharynx and Nasopharynx	M			1							1		1	5	1				1	10
	F				2			1	1		1								1	6
Oesophagus	M											1	2	3	4	3	2	4		19
	F														1	1	2			4
Stomach	M							1		1	1	3	5	9	9	17	11	7	9	70
	F										1		4	5	5	4	5	6	6	36
Small Intestine	M														1	2	1			6
	F											1	1			1	2			6
Colon	M									6	10	7	10	16	16	32	27	11	11	180
	F							1	2	1	2	8	13	16	22	23	26	17	17	190
Rectum	M							1	1	1	2	6	10	12	15	14	21	9	6	98
	F							1		2	4	5	7	9	6	8	9	4	7	64
Liver, Gall Bladder, Bile Ducts	M										1	1	4	1	5	7	3	2	1	25
	F	1										1	2		1	5	6	3	1	20
Pancreas	M										1	2	4	7	12	9	5	7	1	51
	F												3		5	5	6	3	4	20
Larnyx	M											2	5	5	5	6	4	1		33
	F										1	1	1		1	2				6
Lung	M								2	6	9	19	29	32	51	46	36	28	12	292
	F								1	3	4	11	5	13	14	10	3	6	2	80
Breast	M												1				1			2
	F		1				8	10	12	19	30	26	41	37	47	48	40	21	18	374
Prostate	M				1					1	1	4	14	32	55	66	77	55	40	381
Testis	M				1	4	2	5	3		1	1			1					16
Other Male Organs	M												2		1	1	1		1	6
Cervix (Invasive)	F						5	1	6	4	2	2	4	3	2	5			2	36
Cervix (In-situ)	F					17	37	36	14	8	7	3	3	1	3	4	1		1	139
Uterus	F								3		3	16	10	24	15	12	6	6	3	101
Ovary	F						1		1	2	1	6	7	10	10	6	9	2	3	69
Other Female Organs	F						1								1	5		1	4	12
Other Urinary Organs	M	1									3	2	6	12	7	13	6	1	1	62
	F	4	1					1			2	3	1	4	6	6	6	3	4	41
Urinary Bladder	M							2		1	3	4	16	13	16	20	14	7	11	112
	F										1	3	4	6	2	6	6	6	6	37
Malignant Melanoma	M							1	1	2		1	2	2	3	4	3	2	1	22
	F					1	4	4	3		2		2	3	5	3		3	1	31
Skin	M		1			3	3	7	7	19	16	40	61	94	139	126	137	100	66	843
	F				1		5	4	8	15	17	31	36	55	73	76	76	67	66	654
Brain and Other parts of Nervous System	M	1		3	1		2		1	2	2	2	4	2	5	4	2	1		32
	F	2	3			1		1		2	1		6	1	3	3	2			25
Thyroid	M						1		1	1	2	2		1	4	2		1		15
	F						1	4	2	3	1	2	1	1	6	2		2		24
Bone and Cartilage	M			1		1		2		1		1		1						7
	F	1	1																	2
Soft Tissue	M				2				1	3	1			1	4	2	1	2	1	18
	F						1				1	1	1			1	1		2	6
Hodgkin's Disease	M			1		4	4	1			1	1	1		1	1	1			16
	F					1			1	1		1	1	1		2		1		9
Lymphoid Tissue	M		1	1		1	1	3	3		4	1	10	6	4	7	10	3	6	61
	F			1					2	1	2	1	6	2	5	6	3	2	1	37
Leukemia	M	4	2		3	3	2	1			2	1	6	10	6	6	10	6	7	73
	F	4	1					1		3				4	5	4	7	2	2	33
Multiple Myeloma	M											1	1	4	3	6	6		1	21
	F											2		1	2	6	3	3	2	19
Miscellaneous	M	1						1		2	2		2	1	1	3	2	1	3	19
	F	3							1			1	2	1	2	1	2	1		14
Primary Unknown	M									1					3		1	2		7
	F														1				1	2
Secondary	M							1		2	2	2	1	4	3	5	2	6	3	36
	F					1			1	1	3	3	3	4	2	3	6	6	3	42
In-Situ	M									1	1	1	3	12	5	3	10	6	10	64
	F							1		4	3	5	3	3	6	11	6	3	10	71
Total — All Sites	M	7	4	7	8	16	15	34	21	64	72	111	210	316	380	427	415	272	227	2,527
	F	15	7	1	3	21	57	70	59	59	93	135	170	239	331	366	246	175	139	2,316
Total		22	11	8	11	37	72	94	80	123	165	246	380	547	691	793	662	447	366	4,798

INCIDENCE OF CANCER PER 100,000 POPULATION
1981, 1982, 1983

Site	Total Population (1)						Population at Risk (2)					
	1981		1982		1983		1981		1982		1983	
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
Lip	17.0	1.4	13.3	0.8	19.9	1.8	48.2	3.4	33.7	1.4	42.8	3.5
Oral Cavity	4.0	4.5	5.8	2.8	6.3	2.2	10.2	10.8	9.5	6.8	13.4	6.2
Pharynx & Nasopharynx	3.0	0.8	2.4	0.8	2.0	1.2	7.8	2.0	6.0	1.9	4.9	2.9
Oesophagus	3.0	0.8	3.8	1.0	3.7	0.8	7.8	2.0	9.0	2.4	9.4	1.9
Stomach	11.0	6.7	16.1	8.4	13.7	7.1	28.0	16.2	40.7	13.0	34.8	17.1
Small Intestine	1.2	0.8	1.8	1.8	1.0	1.0	3.1	2.0	4.5	3.9	2.5	2.4
Colon	25.7	32.7	29.4	29.1	29.4	29.7	65.2	79.1	66.8	62.7	74.2	71.1
Rectum	22.8	10.4	19.3	12.8	19.4	12.7	57.1	25.1	46.7	28.9	49.0	30.4
Liver, Gall Bladder & Bile Ducts	4.6	5.5	4.0	4.4	4.9	4.0	11.7	13.3	10.1	10.8	12.4	9.8
Pancreas	9.6	7.3	10.5	10.1	10.0	8.9	24.5	17.7	26.6	24.1	25.2	14.2
Larynx	7.0	0.2	3.8	1.2	5.9	1.2	17.8	0.5	9.5	2.9	14.8	2.8
Lung	80.2	19.5	83.9	23.5	87.3	16.9	182.9	47.2	141.2	58.4	144.5	37.9
Breast	0.4	82.8	0.6	79.0	0.4	74.1	1.0	209.3	1.5	197.2	1.0	177.4
Prostate	98.2		79.9		74.7		234.5		192.0		186.5	
Testis*	2.6		3.8		3.1		6.4		8.5		6.8	
Other Male Organs	0.8		1.4		1.2		2.0		3.5		3.0	
Cervix Invasive††		5.7		6.0		7.1		10.4		11.1		12.3
Cervix In-Situ†		46.1		39.2		27.4		111.8		87.0		67.8
Uterus		23.0		21.3		20.0		55.5		51.1		47.9
Ovary		12.4		13.5		11.7		30.0		32.3		28.0
Other Female Organs		1.8		3.2		2.4		4.4		7.7		5.7
Other Urinary Organs	12.0	4.3	10.7	5.9	10.2	8.1	30.6	10.3	27.1	14.0	25.7	19.4
Urinary Bladder	27.1	6.5	23.1	8.0	22.0	7.3	68.6	20.1	56.3	14.5	55.4	17.5
Malignant Melanoma (Skin)	6.0	6.9	5.8	6.4	4.3	6.1	15.3	21.6	14.6	15.4	10.9	14.7
Skin	149.2	113.2	141.9	105.3	165.3	111.8	379.2	273.7	366.9	256.2	417.1	267.5
Brain & Nervous System	7.0	4.7	5.2	5.4	6.3	5.0	17.8	11.3	13.1	13.0	15.8	11.9
Thyroid	1.6	5.9	2.2	5.8	2.9	4.9	4.1	14.3	5.5	13.5	7.4	11.4
Bone & Cartilage	0.8	0.2	2.2	0.8	1.4	0.4	1.5	0.5	5.5	1.9	3.5	0.9
Soft Tissue	2.6	2.2	2.0	2.6	3.5	1.0	6.6	5.4	5.0	6.3	8.9	3.8
Hodgkin's Disease*	3.2	1.4	3.0	2.2	3.1	1.8	8.7	1.9	4.8	2.9	8.5	2.3
Lymphoid Tissue	12.0	10.4	11.7	7.4	12.0	7.3	30.9	25.1	29.6	17.8	30.2	17.5
Leukemia	11.2	9.8	14.7	9.4	14.3	8.5	28.5	23.6	37.2	22.7	36.1	18.7
Multiple Myeloma	5.6	2.0	4.8	3.4	4.1	3.8	14.3	4.9	11.8	8.2	10.4	8.5
Miscellaneous	4.8	2.2	5.2	2.6	3.7	2.8	12.2	5.4	15.6	6.3	9.4	6.6
Primary Unknown	0.4	0.6	1.4	1.2	1.4	0.4	1.0	1.5	3.5	2.9	3.5	0.9
Secondary Site	7.0	9.5	8.8	5.8	7.1	8.3	17.8	18.7	17.1	13.5	17.8	19.9
In-situ Cancers	8.2	18.1	10.5	8.8	12.6	14.1	20.9	36.4	26.6	21.2	31.7	33.7
Total — All Sites	823.6	490.9	494.4	431.1	523.0	415.8	1,330.9	1,114.5	1,249.7	1,094.7	1,319.6	996.1
Total — All Sites — Both Sexes	492.3		462.7		468.8		1,220.7		1,139.8		1,184.1	

Note: (1) Population Statistics, 1981 based on Saskatchewan Hospital Services Plan, Covered Population, 1981.
Population Statistics, 1982 based on Saskatchewan Hospital Services Plan, Covered Population, 1982.
Population Statistics, 1983 based on Saskatchewan Hospital Services Plan, Covered Population, 1983.

Note: (2) Population at Risk is 35 years of age and older, except for: *15 years of age and older, † 20 years of age and older.

Number of New Cases Admitted and Patient Examinations by Patient Type and Clinic 1982 and 1983

Patient Type	[illegible] Regional Clinic Regina		[illegible] Cancer Clinic		Total Both Clinics	
	1982	1983	1982	1983	1982	1983
New Cases						
Malignant	2,331	2,511	2,279	2,521	4,610	5,032
Benign	140	166	104	92	244	257
Still Under Investigation	142	3	105	5	247	8
Total	2,613	2,680	2,488	2,618	5,101	5,307
Re-Admit Patient Visits						
Follow Up at Clinic	8,853	9,061	9,228	11,048	18,758	21,010
Follow Up Elsewhere	18,109	16,810	18,831	18,189	34,940	34,999
Total	26,942	26,771	28,757	29,238	53,699	56,009
Grand Total	29,555	29,470	29,245	31,846	58,800	61,316

An analysis of the distribution of new cancers diagnosed in 1983 by cancer site, sex, and age group is included on page 24 of this report. These distributions do not include neoplasms of uncertain behavior which are counted as benign in the above table.

Number of Patients Treated by Radiation 1982 and 1983

Type of Radiation Treatment	[illegible] Regional Clinic Regina		[illegible] Cancer Clinic		Total Both Clinics	
	1982	1983	1982	1983	1982	1983
Betatron			272	284	272	284
Linear Accelerator	312	540			312	540
Cobalt	871	610	557	532	1,428	1,141
X-ray	176	188	75	141	250	297
Interstitial and Intracavitary	34	27	30	43	64	70
Gold Grains	1	4	4		5	4
Brachy	14	18	4	4	18	22
Other (Pos. 1181)			18	25	18	25
Total	1,307	1,388	960	1,019	2,266	2,384

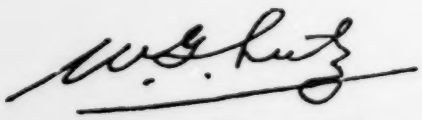
SASKATCHEWAN CANCER FOUNDATION
FINANCIAL STATEMENTS
Year Ended March 31, 1984

AUDITOR'S REPORT

To the Members of the Legislative Assembly
Province of Saskatchewan

I have examined the balance sheets of the Saskatchewan Cancer Foundation as at March 31, 1984 and the statements of general fund revenue and expenditure, general fund balance, trust fund revenue, expenditure and fund balance, research fund revenue and expenditure, and research fund balance for the year then ended. My examination was made in accordance with generally accepted auditing standards, and accordingly included such tests and other procedures as I considered necessary in the circumstances.

In my opinion, these financial statements present fairly the financial position of the Saskatchewan Cancer Foundation as at March 31, 1984 and the results of its operations for the year then ended in accordance with the accounting policies described in note 1 applied on a basis consistent with that of the preceding year.



Regina, Saskatchewan,
August 20, 1984.

W. G. Lutz, F.C.A.,
Provincial Auditor.

Statement 1

GENERAL FUND
BALANCE SHEET
As at March 31

	1984	1983
ASSETS		
Current:		
Cash and short-term investments	$ 2,083,681	$ 1,123,215
Accounts receivable and accrued interest	105,232	20,623
Prepaid expenses	13,862	10,868
Total current assets	2,682,085	1,154,706
Fixed Assets (Notes 1 and 4)	3,422,063	2,063,693
	$ 6,104,148	$ 3,218,259
LIABILITIES AND FUND BALANCE		
Current:		
Accounts payable and accrued charges	$ 960,982	$ 556,188
Deferred Revenue – major equipment grants (Note 6)	1,046,123	–
Deferred revenue – other	2,124	45,564
Total liabilities	2,018,229	601,752
Fund balance (Statement 3)	4,085,919	2,616,507
	$ 6,104,148	$ 3,218,259

(See accompanying notes to the financial statements)

Statement 2

GENERAL FUND
STATEMENT OF REVENUE AND EXPENDITURE
Year Ended March 31

	1984	1983
Revenue:		
Grants – Province of Saskatchewan	$12,894,191	$11,[illegible]
– Canadian Cancer Society	[illegible]	[illegible]
– other	[illegible]	[illegible]
Investment income	197,[illegible]	[illegible]
Charges to non-residents	17,[illegible]	[illegible]
Proceeds from disposal of equipment	3,991	[illegible]
Patient Lodge – Room rentals and sale of meals	[illegible]	–
Other income	[illegible]	[illegible]
	13,274,694	11,207,472
Expenditures:		
Salaries and employee benefits	5,897,193	5,048,928
Medical services	3,877,914	3,564,488
Drugs, medical and surgical supplies	1,000,594	874,942
Purchased services		
– diagnostic radiology	336,827	288,743
– laboratory services	283,750	197,269
– isotope services	169,492	152,075
Computer services	203,987	203,895
Consultant fees	113,536	–
Equipment purchases and leasehold alterations (Note 1)	384,155	278,078
Repair and maintenance of clinic equipment	79,[illegible]	84,392
Other expenditures	743,[illegible]	687,821
	13,183,612	11,286,209
Excess of revenue over expenditures	$ 111,082	$ 238,263

(See accompanying notes to the financial statements)

Statement 3

GENERAL FUND
STATEMENT OF FUND BALANCE
Year Ended March 31

	1984	1983
Equity in fixed assets:		
Balance, beginning of year	$ 2,063,693	$ 2,121,370
Fixed asset acquisitions:		
– purchased by general fund, net of disposals	372,243	267,959
– purchased by trust fund	3,366	16,957
– donated (Note 7)	1,443,333	1,228
	3,882,657	2,406,514
Provision for depreciation	460,604	342,821
Balance, end of year	3,422,053	2,063,693
Unappropriated fund balance:		
Balance, beginning of year	552,814	289,147
Adjustment of prior year's estimated wage settlement	–	24,404
Excess of revenue over expenditure (Statement 2)	111,052	238,263
Balance, end of year	663,866	552,814
Fund balance, end of year	$ 4,085,919	$ 2,616,507

(See accompanying notes to the financial statements)

Statement 4

TRUST FUND
BALANCE SHEET
As at March 31

	1984	1983
ASSETS		
Cash and short-term investments	$ 468,219	$ 399,018
Accrued interest receivable	26,842	–
Accounts receivable	1,833	–
Prepaid expenses	200	–
	$ 497,894	$ 399,018
Liabilities and Fund Balance		
Accounts payable	$ 1,389	$ 9,678
Total liabilities	1,389	9,678
Fund balance (Statement 5) (Note 2)	496,505	389,340
	$ 497,894	$ 399,018

(See accompanying notes to the financial statements)

Statement 6

TRUST FUND

STATEMENT OF REVENUE, EXPENDITURE AND FUND BALANCE

Year Ended March 31

	1984	1983
Revenue:		
Royalties	$ 109,000	$ 39,000
Investment income	28,072	44,446
Contributions to developing countries' projects – Western Diet	4,572	1,802
	141,642	85,251
Expenditure:		
Professional consultants	3,572	16,982
Personnel, general services	7,274	7,693
Grants to other agencies	12,500	–
Materials for developing preservation project	4,872	1,760
Library	2,334	1,172
Staff training and conferences	5,343	1,300
Research	484	–
Other	498	462
	34,877	29,319
Excess of revenue over expenditure	109,995	84,232
Fund balance, beginning of year	399,340	335,108
Fund balance, end of year	$ 499,305	$ 399,340

(See accompanying notes to the financial statements)

Statement 6

RESEARCH FUND

BALANCE SHEET

As at March 31

	1984	1983
ASSETS		
Current:		
Cash and short-term investments	$ 383,622	$ 338,177
Accrued interest receivable	8,522	–
Unexpended advances on research projects	41,893	2,900
Total current assets	434,038	341,077
Fixed:		
Equipment and furnishings at cost (Note 1)	148,842	130,117
Less: Accumulated depreciation	33,342	17,889
Total fixed assets	113,500	112,228
	$ 547,538	$ 453,305
LIABILITIES AND FUND BALANCE		
Current:		
Accounts payable and accrued charges	$ 12,435	$ 6,756
Total current liabilities	12,435	6,756
Fund balance, (Statement 8)	535,103	446,549
	$ 547,538	$ 453,305

(See accompanying notes to the financial statements)

Statement 7

RESEARCH FUND

STATEMENT OF REVENUE AND EXPENDITURE

Year Ended March 31

	1984	1983
Revenue:		
Grant – Province of Saskatchewan (Note 6)	$ 351,700	$ 313,500
– other	–	5,120
Investment income	39,899	41,809
	371,099	393,429
Expenditure:		
Expenditure on research projects (Schedule 1)	283,811	241,855
Excess of revenue over expenditure	$ 87,288	$ 118,574

(See accompanying notes to the financial statements)

Statement 8

RESEARCH FUND

STATEMENT OF FUND BALANCE

Year Ended March 31

	1984	1983
Equity in fixed assets:		
Balance, beginning of year	$ 112,228	$ 61,304
Fixed asset additions	16,725	63,032
	128,953	124,336
Provision for depreciation	15,453	12,108
Balance, end of year	113,500	112,228
Unappropriated equity:		
Balance, beginning of year	334,321	215,747
Excess of revenue over expenditure (Statement 7)	87,282	118,574
Balance, end of year	421,603	334,321
Fund balance, end of year	$ 535,103	$ 446,549

(See accompanying notes to the financial statements)

NOTES TO FINANCIAL STATEMENTS

March 31, 1984

1. **Significant Accounting Policies**

a) **Fixed Assets and Depreciation**

The Saskatchewan Cancer Foundation utilizes fund accounting wherein all revenues and expenditures including those for fixed assets appear in the statement of revenue and expenditure. To maintain accountability for fixed assets, it is necessary to record them as an asset with a corresponding entry to "equity in fixed assets". All fixed assets costing $100 or more are recorded in this manner.

Fixed assets purchased through the Trust Fund are presented as assets of the General Fund. These acquisitions are not included in the fixed asset expenditures of the General Fund but are included in the Trust Fund expenditures. Assets purchased by the Research Fund are recorded as assets of that fund. The value of donated assets are recorded in the General Fund as a direct credit to "equity in fixed assets".

Fixed assets of the Foundation are depreciated on a straight-line basis over their estimated useful lives at rates ranging from 5 to 20% per annum.

As the acquisition of fixed assets is primarily financed by government grants, a provision for depreciation does not appear in the statement of operations but is charged to "equity in fixed assets" to reflect the decrease in the undepreciated cost of the fixed assets.

b) **Operating Surplus or Deficit**

Any operating surplus, exclusive of donations and investment income, is repayable to the Department of Health in the subsequent fiscal year. A deficit on operations is the responsibility of the Saskatchewan Cancer Foundation unless a prior commitment for reimbursement is recognized by the Department of Health. Such surplus repayments or deficit reimbursements, when paid or received in subsequent fiscal years, are reflected as adjustments to "unappropriated fund balance".

c) **Deferred Revenue — Major Equipment**

Amounts are received from the Province of Saskatchewan for the acquisition of certain major equipment (see note 6). Any unexpended funds, including interest earned thereon, are treated as deferred revenue until used to purchase the major equipment items. An amount equal to the expenditure is reflected as revenue during the period such expenditures are incurred.

d) **Donations**

All donations are treated as Revenue of the Trust Fund, which has specifically been established to administer such revenue and the related expenditure.

Certain contributions to the Trust Fund are designated by the contributors to be used for such purposes as cancer research, equipment and library books. The Foundation maintains a continuous record of the funds contributed and spent for each of the designated purposes until such funds are fully utilized.

e) **Costs Borne by Other Agencies**

In accordance with signed agreements with the hospitals, in which the cancer clinics are located in Regina and Saskatoon, the Foundation has not been charged with occupancy costs relating to the clinics. These costs have been absorbed by the hospitals and no provision for such costs is reflected in these financial statements.

2. **Legal Status of Saskatchewan Cancer Foundation**

The Foundation was created under provisions of The Saskatchewan Cancer Foundation Act, 1979 and commenced operations on August 1, 1979.

Under Section 38(1) of the Act, the Foundation acquired ownership of the assets and rights and assumed responsibility for the debts, liabilities, and obligations of the Government of Saskatchewan and the Saskatchewan Cancer Commission relating to the operation of the clinics in Regina and Saskatoon under The Cancer Control Act.

3. **Restricted Trust Funds**

At March 31, 1984, a balance of $112,640 ($57,758 at March 31, 1983) remained to be used for the purposes designated by the contributors.

4. **Fixed Assets — General Fund**

	1984			1983
	Cost	Accumulated Depreciation	Net Book Value	Net Book Value
Land and Improvements	$ 73,930	$ 393	$ 73,537	$ —
Buildings	1,279,811	63,991	1,215,820	—
Leasehold Alterations	70,683	42,262	28,421	42,558
Equipment and Furniture	4,005,165	1,900,890	2,104,275	2,021,135
	$5,429,589	$2,007,536	$3,422,053	$2,063,693

5. **Research Fund**

The Province of Saskatchewan has provided grants to enable the Foundation to support a number of research projects. The Province has attached the following guidelines to the grants:

a) the expenditure of the grants will be at the discretion of the Foundation. The Foundation will assume responsibility for research costs in excess of the amount granted;

b) research funds, including investment income on the funds, will be kept separate from other funds of the Foundation.

The Foundation has met these guidelines by establishing the Research Fund separate from other funds of the Foundation.

At March 31, 1984 the Research Fund was committed to expenditures totalling $357,782 ($221,637 at March 31, 1983), being the unexpended portion of approved research project awards.

6. **Deferred Revenue — Major Equipment Grants**

The Department of Health has advised the Foundation of its intention to provide grant funds totalling $5,000,000 for the acquisition of major equipment in the period 1983 to 1988. These grant funds are to be paid in semi-annual instalments of $500,000 commencing July 1, 1983 and the funds are to be accounted for separately from other equipment grants made through the regular budgetary process thereby permitting any unexpended funds from a preceding year to be carried into the following years.

At March 31, 1984, the unexpended major equipment funds totalling $1,046,123, classified as deferred revenue in accordance with the accounting policy described in note 1(c), consisted of the following:

Grant instalments received during the year	$1,000,000
Interest earned on grant funds	46,123
	$1,046,123

After March 31, 1984 orders were placed for major equipment purchases totalling $2,175,000. These items are expected to be delivered during the 1984/85 fiscal year and will be financed from the major equipment grant funds.

7. **Saskatoon Patient Lodge**

In April, 1983 the Canadian Cancer Society, Saskatchewan Division, donated a fully-equipped 28-bed patient lodge to the Foundation. The patient lodge is located at 1036 College Drive, Saskatoon. The estimated cost of the lodge building and equipment was $1,443,333.

Under the terms of an agreement between the Canadian Cancer Society and the Foundation, title to this property was transferred to the Foundation and the Foundation assumed responsibility for the operation of the lodge. Title to the property will remain with the Foundation so long as it is operated as a cancer patient lodge.

Schedule 1

RESEARCH FUND
SCHEDULE OF EXPENDITURES ON RESEARCH PROJECTS

Year Ended March 31

	1984	1983
Participation in North Central Cancer Treatment Group	$ 68,885	$ 17,724
Laboratory Establishment Grant, Saskatoon	(207)	32,170
Tissue Culture Project, Regina	12,648	32,226
Hyperthermia Project, Regina	–	5,070
Automatic Compensator Project, Regina	23,980	5,851
Lymphoma Culture Project, Saskatoon	1,758	14,025
Human Tumor Stem Cell Assay, Saskatoon	57,154	49,365
Lymphoma Culture Equipment Grant, Saskatoon	–	12,169
Ceruloplasmin Level Survey, Saskatoon	–	11,540
Patient Positioning Devices Project, Saskatoon	17,830	25,314
Optical Patient Contour Measurement Project, Saskatoon	4,355	16,086
Eldorado Nuclear Survey	–	5,120
Extension of Treatment Planning Function, Regina	22,905	4,946
Video Digitizer Project, Regina	–	349
Lung Cancer and Farming Study, Saskatoon	11,130	9,900
Leukemias and Non-Hodgkins Lymphomas	3,155	–
Chromosomal Abnormalities in Leukemias and Lymphomas, Saskatoon	8,676	–
Automated Set-Up of Linear Accelerator, Regina	2,223	–
Breast Cancer, Pilot Study, Saskatoon	3,000	–
Participation in Children's Cancer Study Group	18,387	–
Cellular Oncogenes in Human Lung Cancer, Saskatoon	24,294	–
Dynamic Cardiac Phantom, Regina	40	–
Participation in Radiation Therapy Oncology Group	3,598	–
	$ 283,811	$ 241,855

RESEARCH PROJECTS

LYMPHOMA COLONY GROWTH WITH CONDITIONED MEDIUM AND OTHER MITAGENIC AGENTS

Maksymiuk, A. W.

This project, in collaboration with Dr. L. F. Skinnider, is evaluating the in vitro colony growth of malignant B lymphocytes using plant lectins, tumor promotors and growth factors. Correlation of growth characteristics with surface marker analysis by fluorescent microscopy of cultured cells and clinical characteristics of patients studied are included. Studies on the initial series of cases have been completed and a manuscript prepared. Continuing studies of fluorescent surface markers are in progress.

BREAST CANCER — THE SASKATCHEWAN EXPERIENCE

Wright, C. J.

The pilot study was undertaken to investigate the feasibility of conducting a major review of the entire Saskatchewan experience in breast cancer from 1932 to the present. The first 20 cases registered per year for 25 years from 1932 were reviewed.

The results demonstrated a very high level of chart completion for all of the data being sought, such as date of entry, details of the primary breast cancer, operation performed, histology of the lesion, local recurrence and date of termination. In summary, the Pilot Study demonstrates a remarkably successful system at the Saskatchewan Cancer Clinics for patient follow-up and recording of data. This, in turn, suggests that the complete study to follow is both reasonable and possible.

HYPERTHERMIA RESEARCH PROJECT

Liem, S. K. and Dickof, P. A.

A preliminary study has been done on the feasiblity of beginning a research program in the field of hyperthermia. The Research Committee to the Saskatchewan Cancer Foundation has made funds available for travel to conferences on this topic. A proposal for hyperthermia research has been presented to the Saskatchewan Cancer Foundation Research Committee.

MEMBERSHIP IN THE RADIATION THERAPY ONCOLOGY GROUP

McGowan, D. G. in collaboration with the Medical Staff of the Department of Radiation Oncology, Saskatoon Cancer Clinic

The Radiation Therapy Oncology Group is a co-operative oncology group with a major emphasis on the use of radiation therapy in the treatment of malignancy. The headquarters are located in Philadelphia. These trials encompass a variety of sites and in addition to radiotherapy include surgery and chemotherapy. A number of studies have been approved by the University of Saskatchewan Ethics Committee. Funding is provided for a Data Manager/Radiotherapy Technologist, as well as travel to bi-annual meetings of the group. This activity is perceived by the Department of Radiation Oncology as its major clinical research activity.

C.A.R. ENDOMETRIAL CANCER AUDIT — 1973-1977

McGowan, D. G.

The Canadian Association of Radiology annually conducts an audit of treatment of major malignancies. In 1983, the subject selected was endometrial cancer. A total of 296 cases have been reviewed covering the period 1973-1977, inclusive. The data so collected will be presented at the Annual Meeting of the Association in June, 1984.

CELLULAR ONCOGENES IN HUMAN LUNG CANCER

Little, C.

This project will review all tissue diagnosis of lung cancer made at the University Hospital in Saskatoon over a 5 year period. We will attempt to see whether a cellular oncogene is amplified in the lung cancer specimens in these patients and, if so, how this correlates with the clinical behaviour of the human lung cancer cell lines along with altered biologic behaviour of these cell lines in vitro.

DYNAMIC PHANTOM FOR NUCLEAR MEDICINE

Sloboda, R.

A previously described compressed-air-driven pump which was designed and built for use in radionuclide simulation studies of left ventricular function has proven to be a valuable tool both in routine quality assurance, testing of ejection fraction measurements and in the development of dedicated hardware enabling physiologically gated SPECT. A current use is the elucidation of clinical techniques directed at absolute quantification of left ventricular volume. The phantom will be modified to incorporate a right ventricle, further enhancing its simulation capabilities.

TREATMENT PLANNING SYSTEM

Morris, P. B. and Dickof, P. A.

The core of a new treatment planning system has been developed. This system has been constructed to allow easily its modification to include new capabilities, and to interface with the existing verify record system. The system has been designed with the transfer to the new VAX system in mind, and will first be used clinically after that transfer is complete.

TEMPERATURE CONTROLLER FOR THE LINAC

Morris, P. B.

A micro-processor based temperature controller has been developed to provide more effective control of the operating temperature of the linear accelerator. As a result, beam can be generated continuously for several hours to allow automatic dosimetry measurement to be made.

AUTOMATIC QUALITY CONTROL SYSTEM FOR THERAPY MACHINES

Morris, P. B.

An interface board has been developed for a recently acquired radiation beam analyser. This permits data from the beam analyser to be sent to the PDP 11/60 computer, allowing the computer to determine if beam flatness, symmetry and relative calibration factors are within acceptable limits. Two advantages of the system over conventional quality control methods are the ability to determine beam characteristics over a wide range of gantry angles, and to immediately provide the therapy technicians with an indication of any problems concerning beam dosimetry.

OPTICAL PATIENT CONTOUR MEASUREMENT

Baillie, A. D. and Potter, W.

An optical system is being designed in which a grid of lines is projected onto the radiotherapy patient and the patient is then imaged onto a second grid. When the second grid is viewed by a camera, the patient appears to be illuminated by parallel sheets of light perpendicular to the viewing axis. This image may then be used to acquire contour data for treatment planning. A preliminary version of this system, which is mounted on the treatment simulator, has been manufactured. The images are viewed with a TV camera and are digitized for computer storage and analysis. Work is underway on the development of software for this purpose. In its final form, the apparatus will provide data describing three-dimensional surfaces and will allow more comprehensive treatment planning with little or no increase in data acquisition time.

SONIC RANGING TO MEASURE PATIENT POSITIONING AND SURFACE CONTOURS

Reid, W. B. and Hummel, R. H.

During the summer and early winter, Mr. Dueck completed a redesign of the software system and Dr. Hummel revised the detection electronics and the overall system design to accommodate the complexity required for a clinically viable system. Personnel have been hired to assist in implementing these designs.

NON-SMALL CELL CARCINOMA OF THE LUNG IN SOUTHERN SASKATCHEWAN

Bethune, W. A., Liem, S. K. and Miller, M. J.

A review of patients treated for this condition in 1977 and 1978 to determine age distribution, sex distribution, smoking habits, survival, etc.

CELL SURFACE MARKER AND COLONY CULTURE STUDY OF LEUKEMIAS AND LYMPHOMAS

Skinnider, L. F. and Maksymiuk, A. W.

The clearer identification of the cell type of the various malignancies has been greatly improved with the use of monoclonal antibodies raised against specific antigens in the leukemic and lymphomatous cells. This assists in choosing the optimal therapy for the patient. All leukemias and most lymphomas are now being typed using this methodology and, in addition, the growth behaviour of the cells in semi-solid media under different culture conditions is being evaluated. Correlation of the growth behaviour with the clinical course is being carried out.

MEMBERSHIP IN THE NORTH CENTRAL CANCER TREATMENT GROUP

Klassen, D. J. and Poon, M. A. in collaboration with the medical staffs of the Saskatoon Cancer Clinic, Saskatoon and the Allan Blair Memorial Clinic, Regina

The North Central Cancer Treatment Group is a co-operative oncology group based out of the Mayo Clinic in Rochester, Minnesota, with the purpose of developing and managing co-operative trials concerning clinical treatment programs in cancer. These trials cover a variety of cancer sites and treatment modalities, although the majority of the studies are with chemotherapeutic agents. This group also participates in studies of a large major American oncology group, the Eastern Co-operative Oncology Group. Participation in the group activities, as well as the individual protocols, have been approved by the University of Saskatchewan Ethics Committee. Funding is provided for Data Manager and Oncology Nurse help as well as travel to the bi-annual work meetings of the group. This research project is equally shared by both clinics and represents a major research activity of the Foundation. During the past year, 42 patients have been entered on the studies of this group. The members have participated in two work meetings of the group, and as well, Dr. Klaassen attended an extra meeting of the Executive Committee in August, 1983. Dr. Klaassen will be the principal investigator for one of the trials involving Chemotherapy of Advanced Metastatic Colon and Rectum Cancer. As a result of these activities, the Saskatchewan program will receive funds for our participation in the group from the North Central Cancer Treatment Group, NCI U.S.A. grant.

SASKATCHEWAN LUNG CANCER AND FARMING COLLABORATIVE STUDY

Klaassen, D. J., Dosman, J. A., McDuffie, H. H., Li, K-Y R. and Cockcroft, D. W.

This study is designed to explore the possibility that farmers in Saskatchewan may be at increased risk to develop lung cancer due to the interaction of occupational exposure to dusts and chemicals, cigarette smoking and familial factors. Specifically, we are assessing the smoking history, occupational hazards, personal and familial medical histories, pulmonary function and genetic background as elucidated by enzyme phenotypes of patients with primary lung cancer and two groups of controls, random community and familial.

STUDIES ON CELL GROWTH REGULATORS AND CANCER CHEMOTHERAPY USING THE HUMAN TUMOR CLONOGENIC ASSAY

Hickie, R. A. and Klaassen, D. J.

The basic aim of this project is to evaluate a new approach to cancer chemotherapy, using agents which selectively bind to, and inhibit the functions of the calcium-binding protein, calmodulin (CaM). This approach is based on findings in our laboratory indicating that CaM levels are abnormally high in cancer cells; since this protein is an integral modulator of several processes involved in cell growth, excessive levels of CaM may contribute to the unregulated growth of cancer cells. Recent studies in our laboratory, using the human tumor clonogenic assay, show that antiCaM drugs inhibit the growth of a wide variety of human cancer cell types including: breast, myeloma, lung, colon and ovary. In view of these promising findings, we plan to extend this work to combination studies of antiCaM drugs with clinically available anticancer drugs in order to determine whether the relatively non-toxic antiCaM drugs can enhance the efficiency and (lower the dose required) of the cytotoxic agents.

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POLICIES GOVERNING ADMISSION TO THE CANCER CONTROL PROGRAM AND PAYMENT OF SERVICES

CANCER CLINIC REFERRAL

Any person who has cancer (or allied disease defined as precancerous or premalignant conditions, carcinoma-in-situ, and certain conditions which antedate cancer), or is suspected of having such, may be referred by a doctor and an appointment requested by telephone, letter or referral form (available from the Clinics). Persons referred to the Clinics, who have been resident in the Province of Saskatchewan for 3 months, are eligible for admission to the cancer program. Wherever possible, in order to substantiate the diagnosis of cancer, it is recommended routine diagnostic evaluation be done by the family physicians or through referral to appropriate specialists prior to being referred to the Cancer Clinics.

INVESTIGATIVE SERVICES

Investigative services carried out, or authorized by the clinics, may include full history and physical examination; diagnostic radiologic services; diagnostic laboratory and pathologic services; radioisotopic procedures; specialty consultations; authorized diagnostic or exploratory surgery performed by suitably qualified and approved medical practitioners in private practice. Fees for such authorized services are a responsibility of the Cancer Foundation.

If a diagnosis of cancer is not substantiated, the patient is discharged from the clinic and referred back to his attending physician. He is **no longer** the financial responsibility of the Cancer Foundation.

PRE-ADMISSION DIAGNOSTIC PROCEDURES LEADING TO A DIAGNOSIS OF CANCER

Payment may be authorized for the following diagnostic procedures carried out by a medical practitioner prior to referral and admission of the patient to the Cancer Control Program, if the findings **are positive,** and the patient is **referred** and admitted to a cancer clinic **within 14 days:**

Biopsy of skin including lip but **excluding pigmented lesions** clinically suspicious for malignant melanoma

Lymph node biopsies

Fine needle biopsy or aspirate cytology

Simple biopsy of cervix

Cone biopsy of cervix performed by a qualified surgeon

Dilation and curettage

Prostatic biopsies

Endoscopy (Esophagoscopies, Bronchoscopies, Gastroscopies)

Cystoscopy

Sigmoidoscopy

Angiography

Aortography

Encephalography

Ventriculography

Myelography

N.B. Breast Biopsy is excluded unless performed by a qualified surgeon

Any other pre-admission diagnostic services are not the responsibility of the Cancer Foundation.

PRE-ADMISSION SURGICAL PROCEDURES LEADING TO A DIAGNOSIS OF CANCER

The Saskatchewan Cancer Foundation **cannot** recognize any claim for medical care of a cancer patient unless the patient has been previously admitted to a cancer clinic and the care authorized, excepting when an **emergency operation** is necessary for a cancerous condition, and the cancer clinic is informed within 7 days. Similarly, when an operation is performed on a provisional diagnosis of a benign condition, and a cancerous condition is found to be the principal disorder present, although not previously suspected, the Cancer Foundation

will accept responsibility. Under certain or special circumstances, a patient may be admitted to the Cancer Control Program without personal attendance at a clinic. This applies in the case of certain skin cancers, completely excised; carcinoma-in-situ of the cervix, and certain other gynecological and urological cancers not requiring consultation or multimodal therapy. The cancer clinic, however, must be notified of the diagnosis, treatment and plans for management, and receive a copy of all pertinent records within the time limits mentioned. Certain surgical cases completely assessed at a major hospital may be authorized by the surgeon communicating with the Director of the cancer clinic by letter or by telephone. It is necessary in such cases that all pertinent records and reports be sent within the 14-day limit for purposes of registration, documentation and authorization of payment for the accounts by the Saskatchewan Cancer Foundation.

POSTMORTEM DISCOVERY OF CANCER

Accounts in connection with the management of a patient who is found at postmortem to have cancer, are **not** the responsibility of the Cancer Foundation and should be processed through the other payment agencies with the statement that the diagnosis was **not** known prior to postmortem examination.

TREATMENT SERVICES

Surgical

When investigation discloses cancer, and surgical treatment is indicated, the patient or his referring physician may choose a surgeon; the final choice of surgeon always rests with the patient. In the exceptional case, when neither the referring physician nor the patient has a preference, then a roster is used to assist the patient in selecting his surgeon.

The Saskatchewan Cancer Foundation will pay surgeons at specialty rates for procedures authorized by the Foundation, provided the surgeon is Certified or is a Fellow of the Royal College of Physicians and Surgeons of Canada, and is on the list of the College of Physicians and Surgeons of Saskatchewan for payment at specialty rates. Furthermore, the surgeon must have previously applied to the Executive Director of the Saskatchewan Cancer Foundation to have his/her name included on the Surgical Roster of the Foundation, and must provide evidence that his/her practice is located in a community with adequate hospital facilities including radiology, pathology, surgical and anesthetic services, and suitably trained personnel to operate such facilities.

In cases of unusual difficulty, or requiring possible multimodal therapy, it is recommended that preoperative consultation and authorization be obtained from the Foundation.

Surgeons wishing to make application for an appointment to the Saskatchewan Cancer Foundation for inclusion on the surgical roster, should write to the Executive Director, Saskatchewan Cancer Foundation, Suite 400 Parliament Place, 2631 28th Avenue, Regina, Saskatchewan S4S 6X3.

Breast Cancer

It is the policy of the Saskatchewan Cancer Foundation that biopsy and elective surgery for patients with suspected breast cancer be carried out by qualified surgeons in hospitals with a qualified pathologist and facilities for the performance of major surgery.

Unless these conditions are met, financial responsibility for breast surgery will not be assumed by the Cancer Foundation.

Medical

The Saskatchewan Cancer Foundation will pay internists and pediatricians for definitive chemotherapeutic management of leukemias and lymphomas, provided:

- they are certified in medicine or pediatrics by the Royal College of Physicians and Surgeons of Canada, or hold the F.R.C.P. (Canada); and have had past experience or special training in the use of cancer chemotherapeutic agents;
- the patient has been admitted to the Cancer Control Program;
- there is cooperation with the medical staff of the cancer clinic to ensure:
  - i) initial and continuing provision of the chemotherapeutic drugs;
  - ii) appropriate safeguards for the patient against untoward toxicity;
  - iii) the keeping of detailed clinical and laboratory records of the progress of the patient, at the cancer clinic.

Specialists' consultations are paid when authorized by a Clinic Director.

Medical care of complications directly related to surgery for cancer is payable by the Saskatchewan Cancer Foundation.

Supportive medical care required by **special** medical circumstances and provided by a qualified internist is also payable by the Cancer Foundation.

Radiotherapeutic

All radiotherapeutic treatment is performed by the staff of the cancer clinic involved.

Chemotherapeutic

A wide range of chemotherapeutic drugs, proven to be useful in the control of cancer are in use by the medical staff of the cancer clinic involved. These drugs are provided without charge to the patient.

Certain drugs may be provided to the practicing physician for administration to his patient, under the general supervision of the cancer clinic staff provided:

- the patient has been previously admitted to the Cancer Control Program;
- the drug may have usefulness in the management of the patient's cancer;
- the toxicity of the drugs is low, or the tolerance of the patient for the drug has been determined previously by the medical staff of a cancer clinic; or the patient is in the advanced stage of his illness;
- regular clinical and laboratory reports in the required detail are submitted to a cancer clinic.

Accounts concerning the administration of these drugs, or day to day supervision of such patients, may be paid by the Saskatchewan Cancer Foundation.

FOLLOW-UP (REVIEW) SERVICES

When treatment for cancer is completed, and the patient is ready to return home, arrangements are made for follow-up examinations. The family doctor or specialist may be requested by a Clinic Director to conduct review examinations. Requests for review examinations by either a specialist or the cancer clinic may be initiated by the family physician by letter to the Clinic Director. A specialist may make requests of the cancer clinic for review examinations as well by the same procedure.

Cancer patients are encouraged to consult their local physician for purposes of familiarization of the doctor with the progress of the patient, and for purposes of supportive treatment or advice related to their malignant conditions. Fees for such services are payable by the Cancer Foundation. A report of the examination must be submitted to the cancer clinic concerned. A correspondence fee, if appropriate, will be paid by the Cancer Foundation.

SUPPORTIVE CARE

Should the patient's condition be advanced at the time of the first examination by the family physician, his continuing care may be authorized **without prior personal attendance** at a clinic, provided the attending physician notifies the Clinic Director. Payment is on a fee-for-service basis.

DRUG SERVICES

Authorized cancer patients in hospital receive all drugs without direct charge. Drugs are **not** supplied as a benefit to out-patients, excepting for certain hormones and chemotherapeutic agents which are provided by the cancer clinics for active treatment of cancer, and certain replacement drugs made necessary by treatments directed towards the control of cancer.

SERVICES EXCLUDED FROM CANCER FOUNDATION RESPONSIBILITY

The travelling expenses of patients to and from clinics are **not** paid by the Saskatchewan Cancer Foundation.

Private or semi-private ward accommodation, and the services of private duty nurses are **not** paid by the Saskatchewan Cancer Foundation.

Medical care for pre-existing non-malignant disease is **not** the responsibility of the Saskatchewan Cancer Foundation.

Fees for authorized diagnostic or exploratory surgery, even though a benign condition be found, may be billed to the Saskatchewan Cancer Foundation. However, fees for concurrent, definitive treatment of benign conditions are **not** the responsibility of the Saskatchewan Cancer Foundation.

Medical and surgical services rendered to a person prior to admission to the Cancer Control Program are not payable by the Saskatchewan Cancer Foundation.

SERVICES AVAILABLE TO NON-CANCER CASES

Persons with non-malignant conditions may be referred to a cancer clinic for treatment by radiotherapy. Fees for medical and surgical services rendered to such persons are not payable by the Saskatchewan Cancer Foundation.

CORRESPONDENCE SERVICES

In the case of all patients, malignant or non-malignant, which may be seen initially or periodically at the clinics, a full report is mailed to the referring physician as soon as possible. If the patient is hospitalized, progress reports will be sent, either during hospitalization, or at the time of the patient's discharge to his home.

BILLING PROCEDURES

Physician accounts should be sent direct to the Medical Care Insurance Commission, 3475 Albert Street, Regina S4S 6X6, using the MCIC claim cards, as they process these accounts for payment on behalf of the Saskatchewan Cancer Foundation. All other accounts should be sent to the cancer clinic where the patient is registered.

SERVICES OUTSIDE THE PROVINCE

All requests for consultation or treatments which are not available in Saskatchewan, are made by contacting the Clinic Director of the cancer clinic concerned. Financial approval of such special out-of-province referrals may then be authorized by the Executive Director.

Requests on behalf of cancer patients are **not** to be sent to the Medical Care Insurance Commission.

Payment by the Foundation for out-of-province services is made under the following circumstances:

(1) When a patient has been referred out-of-province for consultation or treatment not available in Saskatchewan, as outlined above, the cost of such treatment is paid by the Saskatchewan Cancer Foundation. The cost of hospital care is paid by the Saskatchewan Hospital Services Plan. Other costs such as travel, sustenance and accommodation are the patient's responsibility.

(2) The regulations regarding unsuspected and emergency treatment of cancer, apply outside the Province as well.

(3) If neither 1 or 2 apply, and a person receives definitive treatment outside the Province, the Saskatchewan Cancer Foundation will only assume financial responsibility, where:

   (a) the attending physician was a specialist with qualifications recognized by the Saskatchewan Cancer Foundation;

   (b) the appropriate cancer clinic receives complete clinical data from the attending physician including history, physical examination, operative and pathology reports and a discharge summary. The disposition of patient and arrangements for follow-up examinations should be included and subsequent reports sent to the cancer clinic;

   (c) the person attends the cancer clinic for follow-up care immediately upon his return to Saskatchewan.

(4) Subsequent follow-up examinations may be conducted out-of-province provided a report is submitted by the attending physician(s).

(5) Advanced care may be conducted out-of-province, if the patient remains a resident of Saskatchewan or, for three months only, if the patient gives up Saskatchewan residence.

(6) When a Saskatchewan resident moves out of the province and establishes residence elsewhere, and develops cancer, the Saskatchewan Cancer Foundation will pay for medical and surgical management as outlined above, for a period of three months only from the date of departure.

In each case either the patient or his physician will be reimbursed at the same rates, and subject to the same conditions as if the services were provided in Saskatchewan.

CANCER DATA SERVICES

Since 1946 every effort has been made to collect complete statistical data concerning cancer in Saskatchewan. For each patient referred a record containing personal and clinic information is completed.

Also through the assistance of the practicing pathologists, copies of pathology reports of cancer are forwarded regularly to the appropriate cancer clinic.

The submission of such a pathology report of cancer by a pathologist is a statistical matter and does not constitute the referral of the patient to a cancer clinic.

CYTOLOGY SERVICES

The Provincial Cytology Laboratory is located in the Pasqua Hospital in Regina and provides all necessary equipment for the performance of cervical cytology technique upon request, without charge. A rapid reporting service acquaints the physician with the result by mail or telephone. A manual of instruction entitled "Prevention of Cancer, The Female Genital Tract — Saskatchewan", is available from the Provincial Cytology Laboratory, or from the Canadian Cancer Society (Saskatchewan Division), 101 - 2629 29th Avenue, Regina, Saskatchewan S4S 2N9.

CANCER PATIENT LODGE REFERRAL

The Lodge provides free accommodation for patients receiving treatment at the clinic who meet the following criteria:

Eligiblity

- Patient must be registered with the cancer program in Saskatchewan
- Admission must be authorized by a cancer clinic physician
- Patients must be able to care for themselves and must not require any nursing care
- Lodge accommodation is intended for patients who reside outside a 50 km radius of the clinic
- Pediatric patients, age 16 or under, must be accompanied by a responsible adult.

Payment

- Accommodation is free for cancer patients who meet the above criteria
- There will be a per diem charge to patients from outside Saskatchewan
- One companion per patient may be accommodated at the Lodge **if space is available**. Companions will be charged a per diem rate.
- A companion required to accompany a pediatric patient is **not** charged.

HISTORICAL BACKGROUND

1929 The Saskatchewan Medical Association appointed a committee to study facilities available in the Province for treatment of cancer and recommended to the Minister of Health that a cancer program be established.

1930 The Saskatchewan Cancer Commission Act was passed which authorized a Commission to establish a cancer control program in Saskatchewan.

1931 Consultative diagnostic treatment clinics were opened at the Regina General Hospital and the Saskatoon City Hospital.

A radon plant was established at the University of Saskatchewan and was operated by the Cancer Commission until 1962.

1939 The Regina Cancer Clinic was relocated to the Regina Grey Nuns' Hospital.

1944 The Cancer Control Act replaced the Saskatchewan Cancer Commission Act, and provided treatment at provincial expense for persons who had been resident in the province for more than six months.

1945 Radioactive isotopes were introduced to a limited extent at the clinics.

1947 The Canadian Cancer Society provided a personal service worker at each clinic to help in the personal needs of the patient.

1948 The Regina clinic moved to a newly constructed wing of the Regina Grey Nuns' Hospital and was named the Allan Blair Memorial Clinic in recognition of the contribution of the late Dr. Allan W. Blair to the program.

1949 A 25 million electron volt betatron was installed at the University of Saskatchewan and became available for treatment of patients with advanced cancer.

1951 The first cobalt unit in the world was designed and installed at the Saskatoon Cancer Clinic.

1954 The cancer clinic in Saskatoon was moved to the newly constructed University Hospital.

1958 Treatment was extended as an insured benefit to persons who had been resident in the province for more than three months.

1962 Insured benefits for cancer treatment were extended to Saskatchewan residents who received treatment outside the province.

1963 Renovation and expansion of radiotherapy facilities at the Allan Blair Memorial Clinic were completed.

1966 Insured benefits were extended to landed immigrants from the day of arrival.

1970 The Minister of Public Health established a study team to review and examine all aspects of cancer care in Saskatchewan and the report was made available in 1972.

1972 A new radiotherapy facility was opened at the Saskatoon Cancer Clinic which included a new 42 million electron volt betatron.

The Cancer Control Act was amended to provide for the establishment of trust funds which could receive gifts, donations, bequests or grants.

1973 The Cancer Control Act was amended to restructure the Commission and redefine its powers and duties.

A new Commission was appointed in April 1973.

1975 Nuclear medicine services were transferred from the cancer program to the Boards of the University Hospital and the South Saskatchewan Hospital Centre as hospital-based services.

1978 Dr. T. A. Watson completed a study titled "A Report on Some Aspects of the Saskatchewan Cancer Program". Several recommendations were made in the report including the establishment of the Saskatchewan Cancer Foundation to replace the Cancer Commission and the purchase of a linear accelerator for the Allan Blair Memorial Clinic.

Construction was completed on the expanded and renovated radiotherapy facilities at the Allan Blair Memorial Clinic.

1979 The Saskatchewan Cancer Foundation Act was passed establishing a Foundation to replace the Cancer Commission. Under this Act, the Foundation conducts a program for the diagnosis, prevention and treatment of cancer.

1980 Renovation to the Allan Blair Memorial Clinic began with the construction of the chemotherapy treatment area.

1981 A Mevatron 77 Linear Accelerator was installed at the Allan Blair Memorial Clinic.

Construction of a 28 bed patient lodge in Saskatoon was begun.

1982 The newly renovated Allan Blair Memorial Clinic was officially opened on June 22, 1982.

In August, an eight day strike by unionized employees occurred and was ended by an Act of the Legislature.